

Notice of Allowability

Application No.

10/578,769

Examiner

DIEU HIEN T. DUONG

Applicant(s)

TAKEI ET AL.

Art Unit

2821

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/12/2010.
2. ☒ The allowed claim(s) is/are 1,2,6-8,12,13 and 17-22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 02/12/2010
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 02/25/10
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

/Douglas W Owens/
Supervisory Patent Examiner, Art Unit 2821

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/12/2010 has been entered. In virtue of this request, claims 3-5, 9-11 and 14-16 are canceled; thus, claims 1-2, 6-8, 12-13 and 17-22 are currently in the instant application.

Information Disclosure Statement

2. The information disclosure statement(s) (IDS) submitted on 02/12/2010 in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is considered by the examiner.

Interview Summary

3. Examiner contacted applicant's representative, Stephen J. Weyer (Registration No. 43,259), on February 25, 2010 for discussing about a proposed amendment. Examiner suggested applicant's representative to clarify claims 1, 7, 17-18 and 22 (i.e., claim 1: line 14, delete "when", line 15, add "and", line 16, add "wherein"; claim 7: line 12, delete "when"; claim 17: line 13, delete "when"; claim 18, line 12, delete "when"; claim 22: line 13, delete "when") in order to place the application in condition for allowance. Applicant's representative agreed to authorize examiner to clarify claims 1, 7, 17-18 and 22 in Examiner's amendment.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stephen J. Weyer, on February 25, 2010.

The application has been amended as follows:

Claim 1:

Line 14, delete "when".

Line 15, after "two or more," insert - -and- -.

Line 16, in front of "the total", insert - -wherein- -.

Claim 7, line 12, delete "when".

Claim 17, line 13, delete "when".

Claim 18, line 12, delete "when".

Claim 22, line 13, delete "when".

Allowable Subject Matter

5. Claims 1-2, 6-8, 12-13 and 17-22 are allowed.
6. The following is an examiner's statement of reasons for allowance:

Prior art fails to disclose an antenna comprising a ground conductor, a single feeding point and a plurality of transmission lines, wherein the number of the plurality of transmission lines is equal to or more than four, wherein the plurality of frequencies are

composed of n frequencies of first, second, third and fourth to n -th frequencies, where n is a positive integer of two or more, and wherein the total length of the plurality of transmission lines is shorter than the sum of a quarter wavelength of an electromagnetic wave of the first frequency and half wavelengths of electromagnetic waves of the second, third and fourth to n -th frequencies, the second, third and fourth to n -th frequencies being higher than the first frequency, in combination with the remaining claimed limitations as in claims 1, 7, 17-18 and 22 (claims 2, 6, 8, 12-13 and 19-21 are allowed since they are dependent on claims 1, 7, 17-18).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Inquiry

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEU HIEN T. DUONG whose telephone number is 571-272-8980. The examiner can normally be reached on Monday - Friday, from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

02/25/10
/D. T. D./
Examiner, Art Unit 2821

/Douglas W Owens/
Supervisory Patent Examiner, Art Unit 2821
February 28, 2010